

December 20, 2004
Docket No.: DP-309512/DP-309703 (7500/248)
Serial No.: 10/664,759
Filed: September 17, 2003
Page 2 of 9

IN THE CLAIMS:

Please amend claim 11 as indicated below so that a complete set of claims 1-21 read as follows:

1. (Original) A method of selectively inhibiting wheel rotation of a vehicle during brake failure, the method comprising:
 - determining a brake force lost corresponding to a failed brake;
 - determining a brake force reserve corresponding to at least one non-failed brake;
 - determining at least one command brake force based on the brake force lost and the brake force reserve; and
 - applying the at least one command brake force to the at least one non-failed brake wherein at least one of an undesired yaw moment and a yaw moment rate of change are limited to predetermined values.
2. (Original) The method of claim 1 wherein determining the brake force reserve comprises determining a limit brake force and a desired brake force.
3. (Original) The method of claim 1 wherein the command brake force for a same side non-failed brake is based on the brake force lost when the brake force lost is about equal to or less than the brake force reserve.
4. (Original) The method of claim 1 wherein the command brake force for a same side non-failed brake is based on the brake force reserve when the brake force lost is greater than the brake force reserve.

December 20, 2004

Docket No.: DP-309512/DP-309703 (7500/248)

Serial No.: 10/664,759

Filed: September 17, 2003

Page 3 of 9

5. (Original) The method of claim 4 wherein the command brake force for at least one opposite side non-failed brake is based on the brake force lost and the brake force reserve when the brake force lost is greater than the brake force reserve, and less than or about equal to the brake force reserve added to a threshold value.

6. (Original) The method of claim 4 wherein the command brake force for at least one opposite side non-failed brake is based on an initial yaw moment and a total brake force.

7. (Original) The method of claim 1 wherein the brake failure comprises a brake actuator failure.

8. (Original) The method of claim 1 further comprising:
determining a steering correction to counter a yaw moment generated from asymmetric braking based on a predetermined limit; and
applying the steering correction.

9. (Original) The method of claim 8 wherein the command brake force for at least one opposite side non-failed brake is based on the brake force lost, the brake force reserve, and a nominal brake force distribution when the steering correction is within the predetermined limit.

10. (Original) The method of claim 8 wherein the command brake force for at least one opposite side non-failed brake is based on the yaw moment and a nominal brake force distribution when the steering correction is outside the predetermined limit.

December 20, 2004
Docket No.: DP-309512/DP-309703 (7500/248)
Serial No.: 10/664,759
Filed: September 17, 2003
Page 4 of 9

11. (Currently Amended) A computer usable medium for selectively inhibiting wheel rotation of a vehicle during brake failure, the computer usable medium encoded with a computer program comprising:

computer readable program code for determining a brake force lost corresponding to a failed brake;

computer readable program code for determining a brake force reserve corresponding to at least one non-failed brake;

computer readable program code for determining at least one command brake force based on the brake force lost and the brake force reserve; and

computer readable program code for applying the at least one command brake force to the at least one non-failed brake wherein at least one of an undesired yaw moment and a yaw moment rate of change are limited to predetermined values.

12. (Original) The computer usable medium of claim 11 wherein the computer readable program code for determining the brake force reserve comprises computer readable program code for determining a limit brake force and a desired brake force.

13. (Original) The computer usable medium of claim 11 wherein the command brake force for a same side non-failed brake is based on the brake force lost when the brake force lost is about equal to or less than the brake force reserve.

14. (Original) The computer usable medium of claim 11 wherein the command brake force for a same side non-failed brake is based on the brake force reserve when the brake force lost is greater than the brake force reserve.

December 20, 2004

Docket No.: DP-309512/DP-309703 (7500/248)

Serial No.: 10/664,759

Filed: September 17, 2003

Page 5 of 9

15. (Original) The computer usable medium of claim 14 wherein the command brake force for at least one opposite side non-failed brake is based on the brake force lost and the brake force reserve when the brake force lost is greater than the brake force reserve, and less than or about equal to the brake force reserve added to a threshold value.

16. (Original) The computer usable medium of claim 14 wherein the command brake force for at least one opposite side non-failed brake is based on an initial yaw moment and a total brake force.

17. (Original) The computer usable medium of claim 11 further comprising:
computer readable program code for determining a steering correction to counter a yaw moment generated from asymmetric braking based on a predetermined limit;
and
computer readable program code for applying the steering correction.

18. (Original) The computer usable medium of claim 17 wherein the command brake force for at least one opposite side non-failed brake is based on the brake force lost, the brake force reserve, and a nominal brake force distribution when the steering correction is within the predetermined limit.

19. (Original) The computer usable medium of claim 17 wherein the command brake force for at least one opposite side non-failed brake is based on the yaw moment and a nominal brake force distribution when the steering correction is outside the predetermined limit.

December 20, 2004
Docket No.: DP-309512/DP-309703 (7500/248)
Serial No.: 10/664,759
Filed: September 17, 2003
Page 6 of 9

20. (Original) A vehicle brake system comprising:
a plurality of brake assemblies for selectively inhibiting wheel rotation of the vehicle wherein a command brake force is applied to at least one non-failed brake; and
a controller operably attached to the brake assemblies, the controller comprising:
means for determining a brake force lost corresponding to a failed brake;
means for determining a brake force reserve corresponding to a non-failed brake; and
means for determining the command brake force based on the brake force lost and the brake force reserve;
wherein at least one of an undesired yaw moment and a yaw moment rate of change are limited to a predetermined value.

21. (Original) The vehicle brake system of claim 20 further comprising an active steer system operably attached to the controller for applying a steering correction.